

# The American Journal of PATHOLOGY

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*Sergey Ivanov, Shu-Yuan Liao, Alla Ivanova, Alla Danilkovitch-Miagkova, Nadezhda Tarasova, Gregor Weirich, Marsba J. Merrill, Martin A. Proescholdt, Edward H. Oldfield, Joshua Lee, Jan Zavada, Abdul Wabed, William Sly, Michael I. Lerman, and Eric J. Stanbridge*
- 921 Plasminogen Activators Direct Reorganization of the Liver Lobule after Acute Injury  
*Jorge A. Bezerra, Angela R. Currier, Hector Melin-Aldana, Gregg Sabla, Thomas H. Bugge, Keith W. Kombrinck, and Jay L. Degen*
- 931 Inhibition of Type I Procollagen Synthesis by Damaged Collagen in Photoaged Skin and by Collagenase-Degraded Collagen *in Vitro*  
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- 943 Basic Fibroblast Growth Factor and Ultraviolet B Transform Melanocytes in Human Skin  
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- 955 HOX Genes in Human Lung: Altered Expression in Primary Pulmonary Hypertension and Emphysema  
*Heiko A. Golpon, Mark W. Geraci, Mark D. Moore, Heidi L. Miller, Gary J. Miller, Rubin M. Tuder, and Norbert F. Voelkel*
- 967 NF- $\kappa$ B Is Activated in Cholestasis and Functions to Reduce Liver Injury  
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- 977 CD28-B7-Mediated T Cell Costimulation in Chronic Cardiac Allograft Rejection: Differential Role of B7-1 in Initiation versus Progression of Graft Arteriosclerosis  
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- 997 PG490-88, a Derivative of Triptolide, Blocks Bleomycin-Induced Lung Fibrosis  
*Ganesb Krishna, Kela Liu, Hidenobu Shigemitsu, Mingxing Gao, Thomas A. Raffin, and Glenn D. Rosen*
- 1005 Sporadic Fundic Gland Polyps: Common Gastric Polyps Arising Through Activating Mutations in the  $\beta$ -Catenin Gene  
*Susan C. Abraham, Bunsei Nobukawa, Francis M. Giardiello, Stanley R. Hamilton, and Tsung-Teb Wu*
- 1011 Expression of the Hypoxia-Inducible and Tumor-Associated Carbonic Anhydrases in Ductal Carcinoma *in Situ* of the Breast  
*Charles C. Wykoff, Nigel Beasley, Peter H. Watson, Leticia Campo, Stephen K. Chia, Ruth English, Jaromir Pastorek, William S. Sly, Peter Ratcliffe, and Adrian L. Harris*
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*Zheng Dong, Manjeri A. Venkatachalam, Joel M. Weinberg, Potbana Saikumar, and Yogendra Patel*
- 1029 A Putative Role for Cathepsin K in Degradation of AA and AL Amyloidosis  
*Christoph Röcken, Barbara Stix, Dieter Brömme, Siegfried Ansorge, Albert Roessner, and Frank Bübling*
- 1039 Generation of C-Reactive Protein and Complement Components in Atherosclerotic Plaques  
*Koji Yasojima, Claudia Schwab, Edith G. McGeer, and Patrick L. McGeer*
- 1053 Chemokine-Induced Cutaneous Inflammatory Cell Infiltration in a Model of Hu-PBMC-SCID Mice Grafted with Human Skin  
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- 1065 Structural and Functional Disruption of Vascular Smooth Muscle Cells in a Transgenic Mouse Model of Amyloid Angiopathy  
*Richard Christie, Masaru Yamada, Michael Moskowitz, and Bradley Hyman*
- 1073 Frequent  $\beta$ -Catenin Mutations in Juvenile Nasopharyngeal Angiofibromas  
*Susan C. Abraham, Elizabeth A. Montgomery, Francis M. Giardiello, and Tsung-Teb Wu*



- 1079 Disruption of Integrin Function in the Murine Myocardium Leads to Perinatal Lethality, Fibrosis, and Abnormal Cardiac Performance  
*Rebecca S. Keller, Shau-Yung Shai, Christopher J. Babbitt, Can G. Pham, R. John Solaro, Maria L. Valencik, Joseph C. Loftus, and Robert S. Ross*
- 1091 High Glucose-Induced Hypertrophy of Mesangial Cells Requires p27<sup>KIP1</sup>, an Inhibitor of Cyclin-Dependent Kinases  
*Gunter Wolf, Regine Schroeder, Gunter Zabner, Rolf A. K. Stahl, and Stuart J. Shankland*
- 1101 Monocyte/Macrophage Activation by Normal Bacteria and Bacterial Products: Implications for Altered Epithelial Function in Crohn's Disease  
*Mebri Zareie, Paramjit K. Singh, E. Jan Irvine, Philip M. Sherman, Derek M. McKay, and Mary H. Perdue*
- 1111 Hepatocyte Growth Factor Enhances Vascular Endothelial Growth Factor-Induced Angiogenesis *in Vitro* and *in Vivo*  
*Xiaobua Xin, Suyu Yang, Gladys Ingle, Constance Zlot, Linda Rangell, Joe Kowalski, Ralph Schwall, Napoleone Ferrara, and Mary E. Gerritsen*
- 1121 Primary Ovarian Carcinomas Display Multiple Methylator Phenotypes Involving Known Tumor Suppressor Genes  
*Gordon Strathee, Kim Appleton, Maureen Illand, David W. M. Millan, Jean Sargent, Jim Paul, and Robert Brown*
- 1129 Investigation into the Mechanism of the Loss of Laminin 5 ( $\alpha 3\beta 3\gamma 2$ ) Expression in Prostate Cancer  
*Junsban Hao, Lorren Jackson, Robert Calaluze, Kathy McDaniel, Bruce L. Dalkin, and Ray B. Nagle*
- 1137 Chromosomal Abnormalities Subdivide Ependymal Tumors into Clinically Relevant Groups  
*Yuichi Hirose, Kenneth Aldape, Andrew Bollen, C. David James, Daniel Brat, Kathleen Lamborn, Mitchel Berger, and Burt G. Feuerstein*

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- 1145 Glomeruloid Microvascular Proliferation Follows Adenoviral Vascular Permeability Factor/Vascular Endothelial Growth Factor-164 Gene Delivery  
*Christian Sundberg, Janice A. Nagy, Laurence F. Brown, Dian Feng, Isabelle A. Eckelhoefer, Eleanor J. Manseau, Ann M. Dvorak, and Harold F. Dvorak*
- 1161 Intrachoroidal Neovascularization in Transgenic Mice Overexpressing Vascular Endothelial Growth Factor in the Retinal Pigment Epithelium  
*Catherine Schuessinger, Charles Yee, Richard M. Roban, Antonia M. Jousen, Antonio Fernandez, Tobias N. Meyer, Vassiliki Poulaki, Joseph J. K. Ma, T. Michael Redmond, Suyan Liu, Anthony P. Adamis, and Robert J. D'Amato*
- 1173 Augmented Senile Plaque Load in Aged Female  $\beta$ -Amyloid Precursor Protein-Transgenic Mice  
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- 1181 Glucose, VEGF-A, and Diabetic Complications  
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- 1185 A Case of Tumor Betrayal: Biphasic Effects of TIMP-1 on Burkitt's Lymphoma  
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- 1191 Induction of Megakaryocytic Differentiation in Primary Human Erythroblasts: A Physiological Basis for Leukemic Lineage Plasticity  
*Adam N. Goldfarb, Dongyan Wong, and Frederick K. Racke*
- 1199 Hyperglycemia-Induced Vasculopathy in the Murine Conceptus Is Mediated via Reductions of VEGF-A Expression and VEGF Receptor Activation  
*Emese Pinter, Jody Haigh, Andras Nagy, and Joseph A. Madri*

- 1207 Tissue Inhibitor of Metalloproteinase-1 Alters the Tumorigenicity of Burkitt's Lymphoma via Divergent Effects on Tumor Growth and Angiogenesis  
*Liliana Guede, Andrew J. McMarlin, Douglas W. Kingma, Teresa A. Bennett, Maryalice Stetler-Stevenson, and William G. Stetler-Stevenson*
- 1217 Growth Hormone Receptor Is Expressed in Human Breast Cancer  
*Maria Gebre-Medbin, Lars-Gunnar Kindblom, Håkan Wennbo, Jan Törnell, and Jeanne M. Meis-Kindblom*
- 1223 The Neurofibromatosis Type 2 Gene Is Mutated in Perineurial Cell Tumors: A Molecular Genetic Study of Eight Cases  
*Jerzy Lasota, John F. Fetsch, Agnieszka Wozniak, Bartek Wasag, Raf Sciort, and Markku Miettinen*
- 1231 Comparative Genome-Scale Analysis of Gene Expression Profiles in T Cell Lymphoma Cells during Malignant Progression Using a Complementary DNA Microarray  
*Sbiyong Li, Douglas T. Ross, Marshall E. Kadin, Patrick O. Brown, and Mariusz A. Wasik*
- 1239 Proliferating Bile Duct Epithelial Cells Are a Major Source of Connective Tissue Growth Factor in Rat Biliary Fibrosis  
*Nicolai Sedlacek, Ji-Dong Jia, Michael Bauer, Hermann Herbst, Martin Ruebl, Eckhart G. Hahn, and Detlef Schuppan*
- 1245 Validation of Tissue Microarrays for Immunohistochemical Profiling of Cancer Specimens Using the Example of Human Fibroblastic Tumors  
*Axel Hoos, Marshall J. Urist, Alexander Stojadinovic, Stephen Mastorides, Maria E. Dudas, Denis H. Y. Leung, David Kuo, Murray F. Brennan, Jonathan J. Lewis, and Carlos Cordon-Cardo*

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- 1253 Detection of 1p and 19q Loss in Oligodendroglioma by Quantitative Microsatellite Analysis, a Real-Time Quantitative Polymerase Chain Reaction Assay  
*Janice M. Nigro, Michelle A. Takahashi, David G. Ginzinger, Mark Law, Sandra Passe, Robert B. Jenkins, and Ken Aldape*

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- 1263 Macrophage-Derived Chemokine (MDC/CCL22) and CCR4 Are Involved in the Formation of T Lymphocyte-Dendritic Cell Clusters in Human Inflamed Skin and Secondary Lymphoid Tissue  
*Fuminori Katou, Haruo Ohtani, Takashi Nakayama, Katsubiko Ono, Kouji Matsushima, Anne Saario, Hiroshi Nagura, Osamu Yoshie, and Katsutoshi Motei*
- 1271 Relocalization of Apoptosis-Inducing Factor in Photoreceptor Apoptosis Induced by Retinal Detachment *in Vivo*  
*Toshio Hisatomi, Taiji Sakamoto, Toshinori Murata, Ichiro Yamanaka, Yuji Osbima, Yasuaki Hata, Tatsuro Isibashi, Hajime Inomata, Santos A. Susin, and Guido Kroemer*
- 1279 Molecular Determinants of Ovarian Cancer Plasticity  
*Anil K. Sood, Elisabeth A. Seftor, Mavis S. Fletcher, Lynn M. G. Gardner, Paul M. Heidger, Richard E. Buller, Richard E. B. Seftor, and Mary J. C. Hendrix*
- 1289 c-Myb and Bcl-x Overexpression Predicts Poor Prognosis in Colorectal Cancer: Clinical and Experimental Findings  
*Annamaria Biroccio, Barbara Benassi, Igea D'Agnano, Carmen D'Angelo, Simonetta Buglioni, Marcella Mottolese, Andrea Ricciotti, Gennaro Citro, Maurizio Cosimelli, Robert G. Ramsay, Bruno Calabretta, and Gabriella Zupi*
- 1301 Matriptase and HAI-1 Are Expressed by Normal and Malignant Epithelial Cells *in Vitro* and *in Vivo*  
*Michael Oberst, Joanna Anders, Bin Xie, Baljit Singh, Miguel Ossandon, Michael Johnson, Robert B. Dickson, and Chen-Yong Lin*
- 1313 Origin and Structural Evolution of the Early Proliferating Oval Cells in Rat Liver  
*Sandor Paku, Janos Schnur, Peter Nagy, and Snorri S. Thorgeirsson*
- 1325 Heterogeneous Vascular Dependence of Tumor Cell Populations  
*Joanne L. Yu, Janusz W. Rak, Peter Carmeliet, Andras Nagy, Robert S. Kerbel, and Brenda L. Coomber*
- 1335 Expression and Potential Role of Fas-Associated Phosphatase-1 in Ovarian Cancer  
*Ivo Meinhold-Heerlein, Frank Stenner-Lieuen, Heike Lieuen, Shinichi Kitada, Maryla Krajewska, Stanislaw Krajewski, Juan M. Zapata, Anne Monks, Dominic A. Scudiero, Thomas Bauknecht, and John C. Reed*

- 1345 Inflammatory Responses to Amyloidosis in a Transgenic Mouse Model of Alzheimer's Disease  
*Yasuji Matsuoka, Melanie Picciano, Brian Malester, John LaFrancois, Cindy Zebr, JoAnna M. Daeschner, John A. Olschoubka, Maria I. Fonseca, M. Kerry O'Banion, Andrea J. Tenner, Cynthia A. Lemere, and Karen Duff*
- 1355 Deletion of 11q23 and Cyclin D1 Overexpression Are Frequent Aberrations in Parathyroid Adenomas  
*Samuli Hemmer, Veli-Matti Wasenius, Caj Haglund, Ying Zbu, Sakari Knuutila, Kaarle Franssila, and Heikki Joensuu*
- 1363 Unique Phenotypic Profile of Monocytoid B Cells: Differences in Comparison with the Phenotypic Profile Observed in Marginal Zone B Cells and So-Called Monocytoid B Cell Lymphoma  
*Francisca I. Camacho, Juan F. García, Lydia Sánchez-Verde, Ana I. Sáez, Margarita Sánchez-Beato, Manuela Mollejo, and Miguel A. Piris*
- 1371 Molecular Clonality of In-Transit Melanoma Metastasis  
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- 1379 Replicative Senescence of Biliary Epithelial Cells Precedes Bile Duct Loss in Chronic Liver Allograft Rejection: Increased Expression of p21<sup>WAF1/Cip1</sup> as a Disease Marker and the Influence of Immunosuppressive Drugs  
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- 1391 Elevated Proportion of Natural Killer T Cells in Periodontitis Lesions: A Common Feature of Chronic Inflammatory Diseases  
*Kazubisa Yamazaki, Yutaka Osawa, and Hiromasa Yosbie*
- 1399 Vascular Repair After Menstruation Involves Regulation of Vascular Endothelial Growth Factor-Receptor Phosphorylation by sFLT-1  
*Michael D. Graubert, Maria Asuncion Ortega, Bruce Kessel, Joseph F. Mortola, and M. Luisa Iruela-Arispe*
- 1411 Cyclooxygenase-2 Deficiency Results in a Loss of the Anti-Proliferative Response to Transforming Growth Factor- $\beta$  in Human Fibrotic Lung Fibroblasts and Promotes Bleomycin-Induced Pulmonary Fibrosis in Mice  
*Carmel B. Keertisingam, R. Gisli Jenkins, Nicholas K. Harrison, Norma A. Hernandez-Rodriguez, Helen Booth, Geoffrey J. Laurent, Stephen L. Hart, Martyn L. Foster, and Robin J. McAnulty*
- 1423 Gas6 Regulates Mesangial Cell Proliferation through Axl in Experimental Glomerulonephritis  
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*Júlio C. S. Aliberti, Janeusa T. Souto, Ana P. M. P. Marino, Joseli Lannes-Vieira, Mauro M. Teixeira, Joshua Farber, Ricardo T. Gazzinelli, and João S. Silva*
- 1441 Synthesis of C-X-C and C-C Chemokines by Human Peritoneal Fibroblasts: Induction by Macrophage-Derived Cytokines  
*Janusz Witowski, Annette Thiel, Ralf Decbend, Katbarina Dunkel, Nina Fouquet, Thorsten O. Bender, Jan M. Langrehr, Gerhard M. Gabl, Ulrich Frei, and Achim Jörres*
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*Masabide Tokunou, Toshiro Niki, Keisuke Eguchi, Sanae Iba, Hitoshi Tsuda, Tesshi Yamada, Yoshitomo Matsuno, Haruhiko Kondo, Yukitomo Saitoh, Hiroji Imamura, and Setsuo Hirobasbi*
- 1465 Cartilage-Specific Matrix Protein Chondromodulin-I Is Associated with Chondroid Formation in Salivary Pleomorphic Adenomas: Immunohistochemical Analysis  
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- 1473 Expression of Leukemia-Associated Antigen, JL1, in Bone Marrow and Thymus  
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- 1481 Structural Analysis of Pick's Disease-Derived and *in Vitro*-Assembled Tau Filaments  
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- 1491 Development of a Novel Proteomic Approach for the Detection of Transitional Cell Carcinoma of the Bladder in Urine  
*Antonia Vlabou, Paul F. Scellhammer, Savvas Mendrinou, Keyur Patel, Filippou I. Kondylis, Lei Gong, Subail Nasim, and George L. Wright, Jr.*

- 1503 Chemokine Expression Dynamics in Mycobacterial (Type-1) and Schistosomal (Type-2) Antigen-Elicited Pulmonary Granuloma Formation  
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- 1517 Inverse Relationship between Microsatellite Instability and K-ras and P53 Gene Alterations in Colon Cancer  
*Wade S. Samowitz, Joseph A. Holden, Karen Curtin, Sandra L. Edwards, Adrienne R. Walker, Heather A. Lin, Margaret A. Robertson, Melanie F. Nichols, Kristin M. Gruentbal, Beverly J. Lynch, Mark F. Leppert, and Marita L. Slatery*

- 1525 Pediatric High-Grade Astrocytomas Show Chromosomal Imbalances Distinct from Adult Cases  
*Christian H. Rickert, Ronald Sträter, Peter Kaatsch, Hansdettef Wassmann, Heribert Jürgens, Barbara Dockhorn-Dworniczak, and Werner Paulus*

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- 1533 An Animal Model for Human EBV-Associated Hemophagocytic Syndrome: Herpesvirus Papio Frequently Induces Fatal Lymphoproliferative Disorders with Hemophagocytic Syndrome in Rabbits  
*Kazuhiko Hayashi, Nobuya Obara, Norihiro Teramoto, Sachio Onoda, Hong-Li Chen, Takashi Oka, Eisaku Kondo, Tadasbi Yoshino, Kiyoshi Takahashi, John Yates, and Tadaatsu Akagi*

### **Correspondence**

- 1543 Virchow and Apoptosis  
*L. E. Gerschenon and F. Jon Geske*

### **Correction**

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- 1579 *In Vivo* Elimination of Acentric Double Minutes Containing Amplified MYCN from Neuroblastoma Tumor Cells Through the Formation of Micronuclei  
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- 1585 FE65 in Alzheimer's Disease: Neuronal Distribution and Association with Neurofibrillary Tangles  
*Benoît Delatour, Luc Mercken, Khalid H. El Hachimi, Marie-Anne Colle, Laurent Pradier, and Charles Duyckaerts*
- 1593 Differential Expression of Cytotoxic Molecules and Killer Cell Inhibitory Receptors in CD8+ and CD56+ Cutaneous Lymphomas  
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- 1599 Translocation t(4;14)(p16.3;q32) Is a Recurrent Genetic Lesion in Primary Amyloidosis  
*Vittorio Perfetti, Addolorata M. L. Coluccia, Daniela Intini, Ursula Malgeri, Maurizio Colli Vignarelli, Simona Casarini, Giampaolo Merlini, and Antonino Neri*
- 1605 Polycystic Kidney Rat Is a Novel Animal Model of Caroli's Disease Associated with Congenital Hepatic Fibrosis  
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- 1613 Laser-Induced Noninvasive Vascular Injury Models in Mice Generate Platelet- and Coagulation-Dependent Thrombi  
*Elliot D. Rosen, Sylvain Raymond, Amy Zollman, Francisco Noria, Mayra Sandoval-Cooper, Alexis Shulman, James L. Merz, and Francis J. Castellino*
- 1623 Degenerate Oligonucleotide Primed-Polymerase Chain Reaction-Based Array Comparative Genomic Hybridization for Extensive Amplicon Profiling of Breast Cancers: A New Approach for the Molecular Analysis of Paraffin-Embedded Cancer Tissue  
*Yataro Daigo, Suet-Feung Chin, Kylie L. Gorringer, Lynda G. Bobrow, Bruce A. J. Ponder, Paul D. P. Pharoah, and Carlos Caldas*

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*Hikaru Takeda and Shigeo Kondo*
- 1639 Expression Profiling of Renal Epithelial Neoplasms: A Method for Tumor Classification and Discovery of Diagnostic Molecular Markers  
*Andrew N. Young, Mabul B. Amin, Carlos S. Moreno, So Dug Lim, Cynthia Cohen, John A. Petros, Fray F. Marshall, and Andrew S. Neish*
- 1653 Increased Glomerular and Tubular Expression of Transforming Growth Factor- $\beta$ 1, Its Type II Receptor, and Activation of the Smad Signaling Pathway in the *db/db* Mouse  
*Soon Won Hong, Motobide Isono, Sheldon Chen, M. Carmen Iglesias-de la Cruz, Dong Cheol Han, and Fuad N. Ziyadeh*
- 1665 Expression and Localization of a Novel Rab Small G Protein (Rab38) in the Rat Lung  
*Kazubiro Osanai, Masabaru Iguchi, Keiji Takabashi, Yoshitomo Nambu, Tsutomu Sakuma, Hirobisa Toga, Nobuo Ohya, Hiroshi Shimizu, James H. Fisher, and Dennis R. Voelker*
- 1677 Allelic Loss Is Often the First Hit in the Biallelic Inactivation of the *p53* and *DPC4* Genes During Pancreatic Carcinogenesis  
*Jutta Lüttges, Hamid Galehdari, Verena Bröcker, Ingrid Schwarte-Waldhoff, Doris Henne-Bruns, Günter Klöppel, Wolff Schmieg, and Stephan A. Haber*
- 1685 Expression of a Novel RNA-Splicing Factor, RA301/Tra2 $\beta$ , in Vascular Lesions and Its Role in Smooth Muscle Cell Proliferation  
*Yoshitane Tsukamoto, Noriyuki Matsuo, Kentaro Ozawa, Osamu Hori, Toshio Higashi, Junya Nishizaki, Norimitsu Tobnai, Izumi Nagata, Kiyoshi Kawano, Chikao Yutani, Seichi Hirota, Yukibiko Kitamura, David M. Stern, and Satoshi Ogawa*
- 1695 Tissue-Dependent Alteration of Protease Expression Phenotype in Murine Peritoneal Mast Cells that Were Genetically Labeled with Green Fluorescent Protein  
*Tomoko Jippo, Young-Mi Lee, Yi Ge, Dae-Ki Kim, Masaru Okabe, and Yukibiko Kitamura*
- 1703 CXCR3 and Its Ligand CXCL10 Are Expressed by Inflammatory Cells Infiltrating Lung Allografts and Mediate Chemotaxis of T cells at Sites of Rejection  
*Carlo Agostini, Fiorella Calabrese, Federico Rea, Monica Facco, Alicia Tosoni, Monica Loy, Gianni Binotto, Maria Luisa Valente, Livio Trentin, and Gianpietro Semenzato*
- 1713 Human Trophoblast Invasion and Spiral Artery Transformation: The Role of PECAM-1 in Normal Pregnancy, Preeclampsia, and Fetal Growth Restriction  
*Fiona Lyall, Judith Nicola Bulmer, Elizabeth Duffie, Frances Cousins, Anne Theriault, and Stephen Courtenay Robson*



- 1723 Nephrin Redistribution on Podocytes Is a Potential Mechanism for Proteinuria in Patients with Primary Acquired Nephrotic Syndrome  
*Sophie Doublier, Vesa Ruotsalainen, Gennaro Salvadio, Enrico Lupia, Luigi Biancone, Pier Giulio Conaldi, Paula Reponen, Karl Tryggvason, and Giovanni Camussi*
- 1733 A Vitamin D Analog Ameliorates Glomerular Injury on Rat Glomerulonephritis  
*Kojiro Makibayashi, Mitsuyoshi Tatematsu, Michimori Hirata, Naoshi Fukushima, Kenichiro Kusano, Seiji Obashi, Hideharu Abe, Kogo Kuze, Atsushi Fukatsu, Toru Kita, and Toshio Doi*
- 1743 Systemic Infusion of Angiotensin II into Normal Rats Activates Nuclear Factor- $\kappa$ B and AP-1 in the Kidney: Role of AT<sub>1</sub> and AT<sub>2</sub> Receptors  
*Marta Ruiz-Ortega, Óscar Lorenzo, Mónica Rupérez, Julia Blanco, and Jesus Egido*
- 1757 Suppression of Vascular Endothelial Growth Factor-Mediated Endothelial Cell Protection by Survivin Targeting  
*Mebdi Mesri, Manuel Morales-Ruiz, Elizabeth J. Ackermann, C. Frank Bennett, Jordan S. Pober, William C. Sessa, and Dario C. Altieri*
- 1767 Postatrophic Hyperplasia of the Prostate Gland: Neoplastic Precursor or Innocent Bystander?  
*Rajal Shab, Neil R. Mucci, Anita Amin, Jill A. Macoska, and Mark A. Rubin*
- 1775 Regulation of Gap Junctional Communication by a Pro-Inflammatory Cytokine in Cystic Fibrosis Transmembrane Conductance Regulator-Expressing but Not Cystic Fibrosis Airway Cells  
*Marc Chanson, Pierre-Yves Berclaz, Isabelle Scerri, Tecla Dudez, Kara Wernke-Dollries, Lara Pizurki, Andrea Pavirani, Michael A. Fiedler, and Susanne Suter*
- 1785 nm23-H1 Suppresses Invasion of Oral Squamous Cell Carcinoma-Derived Cell Lines without Modifying Matrix Metalloproteinase-2 and Matrix Metalloproteinase-9 Expression  
*Mahfujul H. Khan, Motoaki Yasuda, Fumihiko Higashino, Sejuty Haque, Takao Kobgo, Motoyasu Nakamura, and Masanobu Shindoh*
- 1793 Circadian Expression of Clock Genes in Human Oral Mucosa and Skin: Association with Specific Cell-Cycle Phases  
*Georg A. Bjarnason, Richard C. K. Jordan, Patricia A. Wood, Qi Li, David W. Lincoln, Robert B. Sottern, William J. M. Hrusbesky, and Yaacov Ben-David*
- 1803 Comparative Genomic Hybridization Identifies Loss of 18q22-qter as an Early and Specific Event in Tumorigenesis of Midgut Carcinoids  
*Salli Kytölä, Anders Höög, Brita Nord, Björn Cedermark, Tony Frisk, Catbarina Larsson, and Magnus Kjellman*
- 1809 The  $\beta$ 2,  $\alpha$ 4,  $\alpha$ 5 Integrins and Selectins Mediate Chemotactic Factor and Endotoxin-Enhanced Neutrophil Sequestration in the Lung  
*J. Adam Burns, Thomas B. Issekutz, Hideo Yagita, and Andrew C. Issekutz*
- 1821 Heat Stress Contributes to the Enhancement of Cardiac Mitochondrial Complex Activity  
*Ivan A. Sammut, Jay Jayakumar, Najma Latif, Stephen Rothery, Nicholas J. Severs, Ryszard T. Smolenski, Timothy E. Bates, and Magdi H. Yacoub*
- 1833 Increased Osteoblast Apoptosis in Apert Craniosynostosis: Role of Protein Kinase C and Interleukin-1  
*Jérôme Lemonnier, Eric Hayé, Philippe Delannoy, Olivia Fromigué, Abderrabim Lomri, Dominique Modrowski, and Pierre J. Marie*
- 1843 Novel Genomic Imbalances in B-Cell Splenic Marginal Zone Lymphomas Revealed by Comparative Genomic Hybridization and Cytogenetics  
*Jesús María Hernández, Juan Luis García, Norma Carmen Gutiérrez, Manuela Mollejo, José Ángel Martínez-Climent, Teresa Flores, María Belén González, Miguel Ángel Piris, and Jesús F. San Miguel*
- 1851 Analysis of T-Cell Subpopulations in T-Cell Non-Hodgkin's Lymphoma of Angioimmunoblastic Lymphadenopathy with Dysproteinemia Type by Single Target Gene Amplification of T Cell Receptor- $\beta$  Gene Rearrangements  
*Klaus Willenbrock, Axel Roers, Christian Seidl, Hans-Heinrich Wacker, Ralf Küppers, and Martin-Leo Hansmann*
- 1859 Mapping the Binding Domain of Immunoglobulin Light Chains for Tamm-Horsfall Protein  
*Wei-Zhong Ying and Paul W. Sanders*
- 1867 Stepwise Deletions of PolyA Sequences in Mismatch Repair-Deficient Colorectal Cancers  
*Corey Blake, Jen-Lan Tsao, Anna Wu, and Darryl Shibata*

## Animal Models

- 1871 Effects of *in Vivo* Heregulin  $\beta 1$  Treatment in Wild-Type and ErbB Gene-Targeted Mice Depend on Receptor Levels and Pregnancy  
*Sue O'Shea, Kent Johnson, Ross Clark, Mark X. Sliwkowski, and Sharon L. Erickson*
- 1881 Immunopathology and Ehrlichial Propagation Are Regulated by Interferon- $\gamma$  and Interleukin-10 in a Murine Model of Human Granulocytic Ehrlichiosis  
*Mary E. Martin, Karen Caspersen, and J. Stephen Dumler*

## Correspondence

- 1889 Bcl-2 Expression in Anaplastic Large Cell Lymphoma  
*Claire Villalva, Fethi Bougrine, Georges Delsol, and Pierre Brousset*
- 1890 Formation of Granulomas in the Lungs of Severe Combined Immunodeficient Mice after Infection with *Bacillus Calmette-Guerin*  
*Torsten Goldmann, Gernot Zissel, Robin Sen Gupta, Max Schlaak, Ekkehard Vollmer, and Joachim Müller-Quernheim*

## June 2001

### 1893 This Month in AJP

#### Commentaries

- 1895 PTEN, a Protean Tumor Suppressor  
*George L. Mutter*
- 1899 Mechanism of Apoptotic Regulation of Follicular Regression: Toward Understanding the Molecular Basis for Tissue Remodeling and Regeneration  
*George F. Murphy*

#### Short Communications

- 1903 Putative Tumor Suppressor Loci at 6q22 and 6q23-q24 Are Involved in the Malignant Progression of Sporadic Endocrine Pancreatic Tumors  
*André Barghorn, Ernst J. M. Speel, Bita Farspour, Parvin Saremaslani, Sonja Schmid, Aurel Perren, Jürgen Roth, Philipp U. Heitz, and Paul Komminoth*
- 1913 p53 Involvement in the Control of Murine Hair Follicle Regression  
*Vladimir A. Botchkarev, Elena A. Komarova, Frank Siebenhaar, Natalia V. Botchkareva, Andrei A. Sbarov, Pavel G. Komarov, Marcus Maurer, Andrei V. Gudkov, and Barbara A. Gilchrist*
- 1921 Tumorigenic Potential of Extracellular Matrix Metalloproteinase Inducer  
*Stanley Zucker, Michelle Hymowitz, Ellen E. Rollo, Richard Mann, Cathleen E. Conner, Jian Cao, Hussein D. Foda, David C. Tompkins, and Bryan P. Toole*
- 1929 Adult-Derived Stem Cells from the Liver Become Myocytes in the Heart *in Vivo*  
*Nadia N. Malouf, William B. Coleman, Joe W. Grisham, Ruth A. Lininger, Victoria J. Madden, Matthew Sproul, and Page A. W. Anderson*
- 1937 Differential Loss of Chromosome 11q in Familial and Sporadic Parasympathetic Paragangliomas Detected by Comparative Genomic Hybridization  
*Hilde Dannenberg, Ronald R. de Krijger, Jianming Zhao, Ernst J.M. Speel, Parvin Saremaslani, Winand N. M. Dinjens, Wolter J. Mooi, Jürgen Roth, Philipp U. Heitz, and Paul Komminoth*
- 1943 Vascular Smooth Muscle Cells of Recipient Origin Mediate Intimal Expansion after Aortic Allograft Transplantation in Mice  
*Jing Li, Xiaozhou Han, Jifu Jiang, Robert Zhong, G. Melville Williams, J. Geoffrey Pickering, and Lawrence H. Chow*
- 1949 Regulated on Activation, Normal T-Cell-Expressed and -Secreted mRNA Expression in Normal Endometrium and Endometriotic Implants: Assessment of Autocrine/Paracrine Regulation by *in Situ* Hybridization  
*Daniela Hornung, Karin Klingel, Katrin Dobrn, Reinhard Kandolf, Diethelm Wallwiener, and Robert N. Taylor*

- 1955 Frequent *FGFR3* Mutations in Papillary Non-Invasive Bladder (pTa) Tumors  
*Claude Billerey, Dominique Cbopin, Marie-Hélène Aubriot-Lorton, David Ricol, Sixtina Gil Diez de Medina, Bas Van Rbijn, Marie-Pierre Bralet, Marie-Aude Lefrere-Belda, Jean-Baptiste Labaye, Claude C. Abbou, Jacky Bonaventure, Elie Serge Zafrani, Theo van der Kuast, Jean Paul Thiery, and Francois Radvanyi*
- 1961 Molecular Cytogenetic Evaluation of Gastric Cardia Adenocarcinoma and Precursor Lesions  
*Herman van Dekken, Janneke C. Alers, Peter H. J. Riegman, Carla Rosenberg, Hugo W. Tilanus, and Kees Vissers*
- 1969 Involvement of the Receptor for Formylated Peptides in the *in Vivo* Anti-Migratory Actions of Annexin 1 and its Mimetics  
*Mauro Perretti, Stephen J. Getting, Egle Solito, Philip M. Murphy, and Ji-Liang Gao*

### Technical Advances

- 1975 *In Situ* Characterization of Genetically Targeted (Green Fluorescent) Single Cells and Their Microenvironment in an Adoptive Host  
*Frank Leitbäuser, Zlatko Trobonjaca, Jörg Reimann, and Peter Möller*
- 1985 A New Method for Histological Microdissection Utilizing an Ultrasonically Oscillating Needle: Demonstrated by Differential mRNA Expression in Human Lung Carcinoma Tissue  
*Michael Harsch, Klaus Bendrat, Gerhard Hofmeier, Detlef Branschheid, and Axel Niendorf*
- 1991 Immunohistochemical Detection of Cell Growth Fraction in Formalin-Fixed and Paraffin-Embedded Murine Tissue  
*Peter Birner, Marion Ritz, Christine Musabl, Rolf Knippers, Johannes Gerdes, Till Voigtländer, Herbert Budka, and Johannes A. Hainfellner*
- 1997 A Precise and Efficient Stereological Method for Determining Murine Lung Metastasis Volumes  
*Boye Schnack Nielsen, Leif Røge Lund, Ib Jarle Christensen, Morten Johnsen, Pernille Autzen Usber, Linda Wulf-Andersen, Thomas L. Frandsen, Keld Danø, and Hans Jørgen G. Gundersen*
- 2005 Expression Profiling of Ductal Carcinoma *in Situ* by Laser Capture Microdissection and High-Density Oligonucleotide Arrays  
*Veronica Luzzi, Victoria Holtschlag, and Mark A. Watson*

### Regular Articles

- 2011 Potential Role of Modifier Genes Influencing Transforming Growth Factor- $\beta$ 1 Levels in the Development of Vascular Defects in Endoglin Heterozygous Mice with Hereditary Hemorrhagic Telangiectasia  
*Annie Bourdeau, Marie E. Faughnan, Merry-Lynn McDonald, Andrew D. Paterson, Ian R. Wanless, and Michelle Letarte*
- 2021 Dimerization Co-Factor of Hepatocyte Nuclear Factor 1/Pterin-4 $\alpha$ -Carbinolamine Dehydratase Is Necessary for Pigmentation in *Xenopus* and Overexpressed in Primary Human Melanoma Lesions  
*Elke Pogge v. Strandmann, Sabine Senkel, Gerhart Ryffel, and Ulrich R. Hengge*
- 2031 Differential Expression of Protease-Activated Receptors-1 and -2 in Stromal Fibroblasts of Normal, Benign, and Malignant Human Tissues  
*Michael R. D'Andrea, Claudia K. Derian, Rosemary J. Santulli, and Patricia Andrade-Gordon*
- 2043 Time Course of Endothelial Cell Proliferation and Microvascular Remodeling in Chronic Inflammation  
*Taichi Ezaki, Peter Baluk, Gavin Thurston, Allyson La Barbara, Carolyn Woo, and Donald M. McDonald*
- 2057 Expression of Inducible Nitric Oxide Synthase and Nitrotyrosine in Multiple Sclerosis Lesions  
*Judy S.-H. Liu, Meng-Liang Zhao, Celia F. Brosnan, and Sunbee C. Lee*
- 2067 p53 Cellular Localization and Function in Neuroblastoma: Evidence for Defective G<sub>1</sub> Arrest Despite WAF1 Induction in MYCN-Amplified Cells  
*Deborah A. Tweedle, Archie J. Malcolm, Michael Cole, Andrew D.J. Pearson, and John Lunec*
- 2079 Quantitative Assessment of the Rat Intrahepatic Biliary System by Three-Dimensional Reconstruction  
*Tatyana V. Masyuk, Erik L. Ritman, and Nicholas F. LaRusso*
- 2089 A Distinctive Pediatric Renal Neoplasm Characterized by Epithelioid Morphology, Basement Membrane Production, Focal HMB45 Immunoreactivity, and t(6;11)(p21.1;q12) Chromosome Translocation  
*Pedram Argani, Anita Hawkins, Constance A. Griffin, Jeffrey D. Goldstein, Mark Haas, J. Bruce Beckwith, Carl B. Mankinen, and Elizabeth J. Perlman*

- 2097 Frequent Loss of PTEN Expression Is Linked to Elevated Phosphorylated Akt Levels, but Not Associated with p27 and Cyclin D1 Expression, in Primary Epithelial Ovarian Carcinomas  
*Keisuke Kurose, Xiao-Ping Zhou, Tsutomu Araki, Stephen A. Cannistra, Eamonn R. Maher, and Charis Eng*
- 2107 Expression of Microtubule-Associated Protein 2 in Benign and Malignant Melanocytes: Implications for Differentiation and Progression of Cutaneous Melanoma  
*Dong Fang, James Hallman, Namrata Sangha, Timothy E. Kute, James A. Hammarback, Wain L. White, and Vijayasaradhi Setaluri*
- 2117 Murine Gammaherpesvirus-68 Infection Causes Multi-Organ Fibrosis and Alters Leukocyte Trafficking in Interferon- $\gamma$  Receptor Knockout Mice  
*Babram Ebrabimi, Bernadette M. Dutia, David G. Brownstein, and Anthony A. Nasb*
- 2127 Myelin/Axonal Pathology in Interleukin-12 Induced Serial Relapses of Experimental Allergic Encephalomyelitis in the Lewis Rat  
*Zubair Ahmed, Djordje Gveric, Gareth Pryce, David Baker, John P. Leonard, and M. Louise Cuzner*
- 2139 The Role of Metalloelastase in Immune Complex-Induced Acute Lung Injury  
*Roscoe L. Warner, Clarence S. Lewis, Luis Beltran, Ellen M. Younkin, James Varani, and Kent J. Johnson*
- 2145 Hibernation, a Model of Neuroprotection  
*Fang Zhou, Xiongwei Zhu, Rudy J. Castellani, Raphaela Stimmelmayer, George Perry, Mark A. Smith, and Kelly L. Drew*
- 2153 Energetic Determinants of Tyrosine Phosphorylation of Focal Adhesion Proteins during Hypoxia/Reoxygenation of Kidney Proximal Tubules  
*Joel M. Weinberg, Manjeri A. Venkatachalam, Nancy F. Roeser, Ruth A. Senter, and Itzhak Nissim*
- 2165 Amyloid Angiopathy and Variability in Amyloid  $\beta$  Deposition Is Determined by Mutation Position in Presenilin-1-Linked Alzheimer's Disease  
*David M. A. Mann, Stuart M. Pickering-Brown, Ayano Takeuchi, Takeshi Iwatsubo, and the members of the Familial Alzheimer's Disease Pathology Study Group*
- 2177 Unbalanced Expression of 11p15 Imprinted Genes in Focal Forms of Congenital Hyperinsulinism: Association with a Reduction to Homozygosity of a Mutation in ABCC8 or KCNJ11  
*Jean-Christophe Fournet, Christine Mayaud, Pascale de Lonlay, Marie-Sylvie Gross-Morand, Virginie Verkarre, Mireille Castaner, Martine Devillers, Jacques Rabier, Francis Brunelle, Jean-Jacques Robert, Claire Niboul-Fékété, Jean-Marie Saudubray, and Claudine Junien*
- 2185 The *NPM-ALK* and the *AT1C-ALK* Fusion Genes Can Be Detected in Non-Neoplastic Cells  
*Brigitte Maes, Vera Vanbentenrijck, Iwona Wlodarska, Jan Cools, Benjamin Peeters, Peter Marynen, and Christiane De Wolf-Peeters*
- 2195 A Quantitative Model for the Dynamics of Serum Prostate-Specific Antigen as a Marker for Cancerous Growth: An Explanation for a Medical Anomaly  
*Kristin R. Swanson, Laurence D. True, Daniel W. Lin, Kent R. Bubler, Robert Vessella, and James D. Murray*
- 2201 Prion Proteins with Different Conformations Accumulate in Gerstmann-Sträussler-Scheinker Disease Caused by A117V and F198S Mutations  
*Pedro Piccardo, Juris J. Liepnieks, Albert Willmann, Stephen R. Dlouhy, Martin R. Farlow, Katherine Young, David Nochlin, Thomas D. Bird, Randal R. Nixon, Melynn J. Ball, Charles DeCarli, Orso Bugiani, Fabrizio Tagliavini, Merrill D. Benson, and Bernardino Ghetti*
- 2209 Accumulation of Amyloid  $\beta$ -Protein in the Low-Density Membrane Domain Accurately Reflects the Extent of  $\beta$ -Amyloid Deposition in the Brain  
*Noriko Osbima, Mabo Morishima-Kawashima, Haruyasu Yamaguchi, Masahiro Yoshimura, Shiro Sugibara, Karen Khan, Dora Games, Dale Schenk, and Yasuo Ibara*

# Animal Model

- 2219 Humoral Hypercalcemia of Malignancy: Severe Combined Immunodeficient/Beige Mouse Model of Adult T-Cell Lymphoma Independent of Human T-Cell Lymphotropic Virus Type-1 Tax Expression  
*Virgile Richard, Michael D. Lairmore, Patrick L. Green, Gerold Feuer, Robert S. Erbe, Björn Albrecht, Celine D'Souza, Evan T. Keller, Jinlu Dai, and Thomas J. Rosol*

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